



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/042,226	01/11/2002	Bernd Riedl	BAYER 25A	5076
23599 7590 01/25/2008 MILLEN, WHITE, ZELANO & BRANIGAN, P.C. 2200 CLARENDON BLVD. SUITE 1400 ARLINGTON, VA 22201			EXAMINER ANDERSON, JAMES D	
			ART UNIT	PAPER NUMBER
			1614	
			MAIL DATE	DELIVERY MODE
			01/25/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/042,226

Applicant(s)

RIEDL ET AL.

Examiner

James D. Anderson

Art Unit

1614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6, 7, 9-11, 13, 15, 38, 39, 44-49, 53, 54, 66, 70, 71, 75, 76, 80, 81 and 88-121 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/ are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 8 sheets.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Continuation of Disposition of Claims: Claims pending in the application are 6,7,9-11,13,15,38,39,44-49,53,54,66,70,71,75,76,80,81 and 88-121.

DETAILED ACTION

***Claims 6, 7, 9-11, 13, 15, 38, 39, 44-49, 53, 54, 66, 70, 71, 75, 76, 80, 81, and 88-121
are presented for examination***

Applicants' amendment filed 10/30/2007 has been received and entered into the application. Accordingly, claims 6, 38, 39, 66, and 90 have been amended and claims 67, 73, 78, and 83 have been cancelled.

Applicants' arguments have been fully considered but they are not deemed to be persuasive. Rejections and/or objections not reiterated from previous Office Actions are hereby withdrawn. The following rejections and/or objections are either reiterated or newly applied. They constitute the complete set presently being applied to the instant application.

Information Disclosure Statement

Receipt is acknowledged of the Information Disclosure Statement filed 10/30/2007. The Examiner has considered the references cited therein to the extent that each is a proper citation. The lined through references were previously considered (see USPTO Form 1449 mailed 4/26/2007). The "Limoine" reference (Page 8/8) was not considered because a complete citation is not provided. Please see the attached USPTO Form 1449.

Response to Arguments

Applicant's arguments filed 10/30/2007 have been fully considered but they are not persuasive. Applicants argue that the *Wands* factors related to this invention have not been properly characterized, particularly as to the state of the prior art, the breadth of the claims, the amount of direction provided, and the quantity of experimentation needed.

First, Applicants argue that the references cited by the Examiner (Gura *et al.* and Johnson *et al.*) discuss alleged deficiencies in preclinical models and systems for identifying new drugs in general and that there is no indication the assays described in the present application identifying *raf* kinase inhibition are ineffective or defective or that the activities of the urea compounds Applicants tested with this assay would not be expected to be efficacious. However, the claims are directed to treating cancerous cell growth (claims 38, 39, 88, 89, and 107), inhibiting *raf* kinase (claim 90), and treating solid tumor carcinomas of the lung, pancreas, thyroid carcinoma of the bladder, carcinoma of the colon, myeloid leukemia, or villous colon adenomas (claim 91). The Gura *et al.* and Johnson *et al.* references are thus applicable to the present claims because they are directed at the unpredictability of treating human cancer.

Second, Applicants argue that they have cited earlier published applications which disclose and claim aryl and hetaryl ureas that inhibit *raf* kinase and find use in treating cancer. However, the disclosures of the cited earlier published applications are substantially similar to the present application and present no evidence that the claimed compounds actually have activity in treating cancer. There is no evidence of record that

the broadly claimed compounds are actually efficacious in treating cancer in any *in vitro* or *in vivo* models of cancer.

Third, Applicants assert that the claims are not overly broad when considered as a whole. However, it is clear from the substituent definitions of the claimed compounds of Formula I that the claims encompass the treatment of human cancer with literally millions of possible compounds. Whereas about 100 compounds were tested for inhibition of *raf* kinase, no compounds appear to have been tested for the treatment of cancer. Further, the claims encompass the treatment of any and all cancers "mediated by *raf* kinase". Such broad treatment of cancer with a broad genus of compounds is inapposite to what is known in the art of chemotherapy. The Examiner is unaware of any single chemotherapeutic agent that is effective against cancer generally.

Fourth, Applicants argue that the Examiner "requires that the specification provide dosages, timing of administration, and administration routes for each of the cancers claimed". However, the Examiner respectfully submits that he never indicated that such teachings are required. While it is true that Applicants need not provide working examples relating to the treatment "of every claimed disease" to satisfy the statute, the fact that Applicants have provided no working examples relating to the treatment of cancer with the claimed compounds is one consideration when analyzing the *Wands* factors relating to enablement of the claims. In the instant case, Applicants assert that because a small percentage of compounds encompassed by the claims inhibit *raf* kinase with IC₅₀s ranging from 1 nM to 10 μ M, the full scope of the claimed compounds must necessarily be effective in the treatment of cancers "mediated by *raf* kinase".

However, there is no evidence of record that upregulation of *raf* kinase is directly involved in the pathogenesis of cancer and that simply inhibiting this enzyme will lead to treatment of cancer. In other words, Applicants have failed to demonstrate that a compound of the invention that inhibits *raf* kinase is also effective in treating cancer *in vitro* or *in vivo*.

Fifth, Applicants argue that there is no evidence to support the Examiner's statement that inhibition of a receptor does not predictably correlate to clinical efficacy. Applicants further argue that FDA approval is not a prerequisite for finding a compound useful within the meaning of the patent laws. The Examiner respectfully submits that he never implied that FDA approval is required. Rather, in analyzing the Wands factor relating to the direction and guidance provided by Applicants, the Examiner made the observation that Applicants have not shown that inhibition of *raf* kinase as demonstrated in the specification correlates to efficacy in the treatment of cancer as instantly claimed (see page 11 of previous Office Action).

Sixth, Applicants assert that the Examiner has ignored the contents of the disclosure and the level of skill in the art in alleging undue experimentation is required to practice the invention. However, it is not routine experimentation for one skilled in the art to synthesize, purify, screen for *raf* kinase inhibition, and test for anticancer activity the broad scope of the claimed compounds. Applicants have provided some direction with respect to assays that may be used to screen the claimed compounds; however they leave it up to others to actually determine which compounds encompassed by the claims have activity in treating cancer. When coupled to the fact that the claims encompass

millions of structurally diverse compounds, it would take undue, painstaking experimentation to actually practice the full scope of the claimed invention.

Accordingly, in view of all of the Wands factors, and especially in view of the broad scope of the claims, it would take undue experimentation to practice the claimed methods of treating cancer with the claimed compounds. The Examiner would be receptive to any evidence Applicants wish to provide demonstrating that compounds of the invention have activity in treating cancer.

Claim Rejections - 35 USC § 112 (2nd Paragraph)

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 6 and 13 are again rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 6, as amended, still recites the limitation wherein W is "as defined in claim 2". Claim 2 has been cancelled. Thus, the definition of W is not clear and distinct as required by 35 U.S.C. 112, 2nd Paragraph. The metes and bounds of the claimed subject matter are not clear because the substituent "W", as recited in claim 6, is indicated to be defined in both cancelled claim 2 as well as claim 38.

Claim Rejections - 35 USC § 112 (2nd Paragraph)

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 6-7, 9-11, 13, 15, 38-39, 44-49, 53-54, 66, 70-71, 75-76, 80-81, 88-89, and 91-121 are again rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

This is an Enablement Rejection.

To be enabling, the specification of the patent application must teach those skilled in the art how to make and use the full scope of the claimed invention without undue experimentation. *In re Wright*, 999 F.2d 1557, 1561 (Fd. Cir. 1993). Explaining what is meant by “undue experimentation,” the Federal Circuit has stated that:

The test is not merely quantitative, since a considerable amount of experimentation is permissible, if it is merely routine, or if the specification in question provides a reasonable amount of guidance with respect to the direction in which experimentation should proceed to enable the determination of how to practice a desired embodiment of the claimed invention. *PPG v. Guardian*, 75 F.3d 1558, 1564 (Fed. Cir. 1996).¹

The factors that may be considered in determining whether a disclosure would require undue experimentation are set forth by *In re Wands*, 8 USPQ2d 1400 (CAFC 1988) at 1404 wherein, citing *Ex parte Forman*, 230 USPQ 546 (BdApls 1986) at 547 the court recited eight factors:

¹ As pointed out by the court in *In re Angstadt*, 537 F.2d 498 at 504 (CCPA 1976), the key word is “undue”, not “experimentation”.

- 1) the quantity of experimentation necessary,
- 2) the amount of direction or guidance provided,
- 3) the presence or absence of working examples,
- 4) the nature of the invention,
- 5) the state of the prior art,
- 6) the relative skill of those in the art,
- 7) the predictability of the art, and
- 8) The breadth of the claims.

These factors are always applied against the background understanding that scope of enablement varies inversely with the degree of unpredictability involved. *In re Fisher*, 57 CCPA 1099, 1108, 427 F.2d 833, 839, 166 USPQ 18, 24 (1970). Keeping that in mind, the Wands factors are relevant to the instant fact situation for the following reasons:

1. The nature of the invention, state and predictability of the art, and relative skill of those in the art

The invention relates to the treatment of cancerous cell growth mediated by RAF kinase comprising administering one of a multitude of compounds represented by Formula I as recited in claim 38.

The relative skill of those in the art is high, generally that of an M.D. or Ph.D. The artisan using Applicant's invention would generally be a physician with a M.D. degree and several years of experience.

That factor is outweighed, however, by the unpredictable nature of the art. It is well established that "the scope of enablement varies inversely with the degree of unpredictability of the factors involved", and physiological activity is generally considered to be an unpredictable factor. See *In re Fisher*, 166 USPQ 18, at 24 (In cases involving unpredictable factors, such as most chemical reactions and physiological activity, the scope of enablement obviously varies inversely with the degree of unpredictability of the factors involved.), *Nationwide Chemical Corporation, et al. v. Wright, et al.*, 192 USPQ 95 (one skilled in chemical and biological arts cannot always reasonably predict how different chemical compounds and elements might behave under varying circumstances), *Ex parte Sudilovsky* 21 USPQ2d 1702 (Appellant's invention concerns pharmaceutical activity. Because there is no evidence of record of analogous activity for similar compounds, the art is relatively unpredictable) *In re Wright* 27 USPQ2d 1510 (the physiological activity of RNA viruses was sufficiently unpredictable that success in developing specific avian recombinant virus vaccine was uncertain). As illustrative of the state of the art, the examiner cites Gura *et al.* (Science, 1997, 278:1041-1042) and Johnson *et al.* (British J. of Cancer, 2001, 84(10):1424-1431).

Gura *et al.*, cited for evidentiary purposes, teaches that researchers face the problem of sifting through potential anticancer agents to find the ones promising enough to make human clinical trials worthwhile and further teach that since formal screening began in 1955, many thousands of drugs have shown activity in either cell or animal models but that only 39 have actually been shown to be useful for chemotherapy (p. 1041, see first and second paragraphs). It is noted that the pharmaceutical art is

unpredictable, requiring each embodiment to be individually assessed for physiological activity. Also, with regard to unpredictability, Johnson *et al.*, also cited for evidentiary purposes, teach that the *in vivo* activity of 39 different agents in a particular histology in a tumor model did not correlate to activity in the same human cancer. *In re Fisher*, 427 F.2d 833, 166 USPQ 18 (CCPA 1970) indicates that the more unpredictable an area is, the more specific enablement is necessary in order to satisfy the statute. Further, the mode of action of anticancer agents is often unknown or very unpredictable and administration of such agents is often accompanied by undesirable side effects.

These articles plainly demonstrate that the art of developing and testing anticancer drugs, particularly for use in humans, is extremely unpredictable, particularly in the case of a single compound or genus of compounds being used to treat any and all cancers.

2. The breadth of the claims

The claims vary in breadth; some (such as claim 38) vary broadly, reciting the treatment of cancerous cell growth mediated by RAF kinase with a broad genus of compounds. Others, such as claim 67, are narrower, reciting specific species of the claimed genus of compounds. All, however, are extremely broad insofar as they disclose the general treatment of cancerous cell growth with the same compounds.

3. The amount of direction or guidance provided and the presence or absence of working examples

The specification provides no direction or guidance for determining the particular administration regimens (*e.g.*, dosages, timing, administration routes, etc.) necessary to

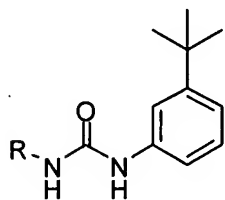
treat all of the various tumors claimed, particularly in humans. The direction concerning treating cancer is found in the specification at pages 95-96, which merely states Applicants' intention to do so by providing a cellular assay and an *in vivo* assay for determining the cell growth inhibitory effect of the claimed compounds. No compounds were actually tested in these assays. Applicants describe formulations at pages 10-13. Doses required to practice their invention are described at page 13. A 20,000-fold range of doses is recommended (*e.g.*, 0.01 to 200 mg/kg). Since only one substituted phenyl urea as instantly claimed has ever been used to treat any human cancer, how is the skilled physician to know what dose to use for each of these pathologically different cancers and structurally diverse compounds? There are no guidelines for determining the doses needed to treat a carcinoma *vs.* a myeloid disorder *vs.* adenoma (*e.g.*, claim 70). Are the identical doses to be used for treating these unrelated cancers? There is both an *in vitro* cellular assay and an *in vivo* assay described in pages 95-96 (with no data) and it is unclear if these assays correlate to all of the cancers encompassed by the claims. There is no working example of treatment of any cancer in cells, animals or man. The *raf* kinase assay (pages 94-95) provides evidence that some of the present compounds inhibit *raf* kinase. However, inhibition of a receptor does not predictably correlate to clinical efficacy. Thus, there are no working examples correlating inhibition of *raf* kinase with efficacy in the treatment of cancer using the claimed compounds (*i.e.*, Applicants have not shown that inhibition of *raf* kinase activity with a compound of the invention correlates to *in vitro* and/or *in vivo* anticancer efficacy with the same compound).

4. The quantity of experimentation necessary

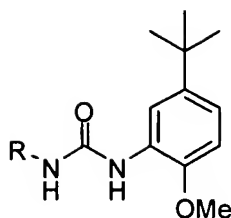
Because of the known unpredictability of the art (as discussed *supra*) and in the absence of experimental evidence commensurate in scope with the claims, the skilled artisan would not accept the assertion that the instantly claimed genus of compounds could be predictably used as a treatment for all cancerous cell growth mediated by RAF kinase as inferred in the claims and contemplated by the specification.

Genentech Inc. vs. Nova Nordisk states, "[A] patent is not a hunting license. It is not a reward for a search but a compensation for its successful conclusion and 'patent protection' is granted in return for an enabling disclosure of an invention, not for vague intimations of general ideas that may or may not be workable" (42 USPQ 2d 1001, Fed. Circuit 1997).

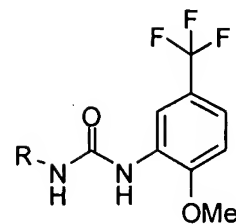
In the instant case, Applicants have presented a general idea that because the instantly claimed compounds inhibit *raf* kinase they must therefore, *a priori*, be useful in the treatment of cancerous cell growth. However, the claims encompass millions of compounds having a plethora of chemically and biologically distinct substituents. Applicants synthesized 103 compounds with very similar core structures (see Tables 1-7).



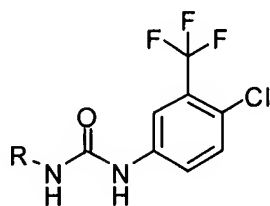
**3-*tert*-Butylphenyl
Ureas**



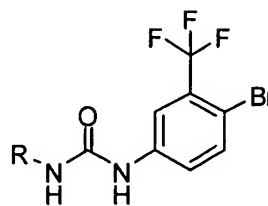
**5-*tert*-Butyl-2-methoxyphenyl
Ureas**



**5-(Trifluoromethyl)-2-
methoxyphenylU reas**



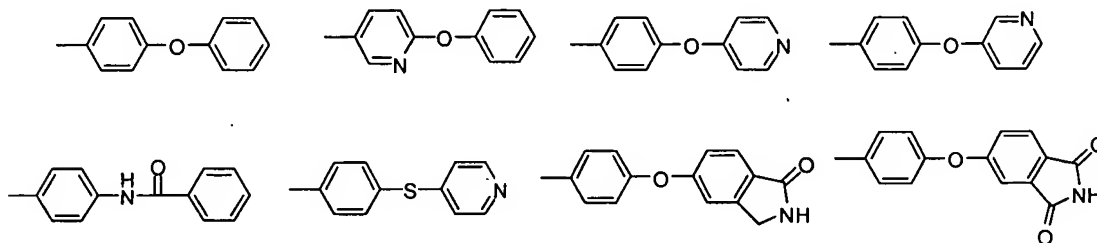
**3-(Trifluoromethyl)-4-
chlorophenylU reas**



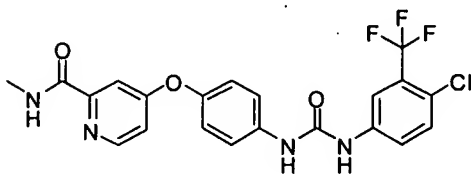
**3-(Trifluoromethyl)-4-
bromophenylU reas**

In all of the compounds synthesized by Applicants, substituent "B" is limited to a phenyl group whereas the claims encompass phenyl, pyridyl, and pyrimidinyl groups.

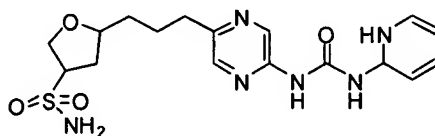
Moreover, the substituents on "B" are limited to only five different substituents, whereas the claims encompass hundreds of different structural distinct substituents. Similarly, the "A" substituent $[-L-M-L^1-]_q$ in the synthesized compounds only encompasses eight substituted and unsubstituted cores whereas the claims encompass a multitude of possible substituents (*e.g.*, wherein L is any 6 member aryl or hetaryl moiety, L^1 is any cyclic moiety having 5-6 members, and M is any one of 13 different substituents).



It is evident that a very small percentage of the claimed compounds were actually synthesized and tested (for *ras* kinase inhibition) by Applicants and all of the synthesized compounds were very closely related in structure. For example, as defined in claim 38, “B” is a substituted or unsubstituted phenyl, pyridyl or pyrimidinyl group. Only phenyl group compounds were synthesized with five different substituents in the same positions. Further, as defined in claim 38, “A is of the formula: $-L-(M-L^1)_q$, where L is a 6 membered aryl moiety or a 6 membered hetaryl moiety bound directly to D, L^1 comprises a substituted cyclic moiety having 5-6 members, q is an integer of from 1-3; and each cyclic structure of L and L^1 contains 0-4 heteroatoms which are nitrogen, oxygen or sulfur” and “wherein L^1 is substituted by at least one substituent which is of $-SO_2R_x$, $-C(O)R_x$ or $-C(NR_r)R_z$ ”. Only compounds wherein L or L^1 contain nitrogen, q is 1 and L^1 is substituted with $-C(O)R_x$ were synthesized. Thus, the compounds actually synthesized and screened by Applicants do not correlate in scope with the claimed subject matter. For example, the compound of Entry 42 (Table 4) is the drug Sorafenib.



Entry 42 (Sorafenib)
(synthesized and tested)



Compound A
(encompassed by claims but not synthesized or tested)

This compound was synthesized and tested for *raf* kinase inhibition by Applicants. Compound A is a hypothetical compound that is encompassed by the claims. This compound, and compounds like it, have not been synthesized or tested. One skilled in the art would not reasonably expect that Compound A would have similar activity to the compounds synthesized and tested by Applicants. The only common structural feature is

the -NH-C(O)-NH- moiety. Given the extremely diverse compounds encompassed by the claims and the limited examples provided in the specification, the skilled artisan cannot predict what structural features (other than those of the compounds actually synthesized) are important for *raf* kinase inhibition. In other words, the structure activity relationship demonstrated in the examples is limited to a very small sub-genus of compounds.

Applicants tested “exemplified” compounds (which compounds were actually tested is not disclosed) for inhibition of *raf* kinase. Applicants state, “[A]ll compounds exemplified displayed IC₅₀s of between 1 nM and 10 μM (page 95, line 8).

Conspicuously absent is any disclosure as to what compounds were most effective (1 nM) or least effective (10 μM) at inhibiting *raf* kinase. As such, the skilled artisan is given no guidance or direction with respect to compounds that might be more expected to treat cancerous cell growth versus those that would not be expected to be clinically effective.

Determining if any particular claimed compound would treat any particular cancerous disease state would require synthesis of the compound, formulation into a suitable dosage form, and subjecting it to clinical trials or to testing in an assay known to correlate to clinical efficacy of such treatment. This is undue experimentation given the limited guidance and direction provided by Applicants. As noted *supra*, even *in vitro* and *in vivo* assays do not always correlate to efficacy in humans and are not generally predictive of clinical efficacy.

Accordingly, the instant claims do not comply with the enablement requirement of 35 U.S.C. § 112, first paragraph, since to practice the claimed invention a person of ordinary skill in the art would have to engage in undue experimentation, with no assurance of success.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 6-7, 9-11, 13, 15, 38-39, 44-49, 53-54, 66, 70-71, 75-76, 80-81, and 88-121 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 29-30, 36 and 48 of copending Application No. 09/777,920. Although the conflicting claims are not identical, they are not patentably distinct from each other because the methods of treatment recited in the claims of the '920 application encompass administration of the instantly claimed compounds of Formula I.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 6-7, 9-11, 13, 15, 38-39, 44-49, 53-54, 66, 70-71, 75-76, 80-81, 88-121 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 9, 11-13, 15-16 and 80-87 of copending Application No. 09/640,780²; claims 15-19 and 28-33 of copending Application No. 09/776,936; claims 74, 81, 87, 93, 99-104, and 106-115 of copending Application No. 09/993,647; claims 13-21, 23-27, 34-38, 40-43 and 48 of copending Application No. 10/895,985; claim 34 of copending Application No. 10/361,858; claims 16-23 of copending Application No. 10/788,426; and claims 8-18 of copending Application No. 10/789,446. Although the conflicting claims are not identical, they are not patentably distinct from each other because the methods of treatment recited in the claims of the cited applications encompass administration of compounds of Formula I.

² It is noted that the conflicting claims of 09/640,780 have been allowed (the last action in the case was an *Ex Parte Quayle* action).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James D. Anderson whose telephone number is 571-272-9038. The examiner can normally be reached on MON-FRI 9:00 am - 5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ardin Marschel can be reached on 571-272-0718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



James D. Anderson
Patent Examiner
AU 1614

January 17, 2008



ARDIN H. MARSCHEL
SUPERVISORY PATENT EXAMINER